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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,921	11/14/2003	Easton L. Manderson	3023-004	7665

7590 05/04/2006

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EXAMINER
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COMSTOCK, DAVID C

ART UNIT	PAPER NUMBER
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3733

DATE MAILED: 05/04/2006

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/706,921

Applicant(s)

EASTON L. MANDERSON

Examiner

David Comstock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 14 November 2003.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following minor informality: page 3, lines 3-4, "...the installation procedure for [?] is..." [emphasis added] appears to be incomplete due to a typographical omission of text.

Appropriate review and correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (4,175,555; cited by applicant) in view of Kim (5,658,288).

Herbert discloses a bone compression and fixation device comprising an elongate tubular member having a threaded leading portion 6 of a first diameter, a threaded trailing end portion 7 having a second diameter larger than the first diameter, and an unthreaded shaft portion 8 interconnecting the threaded portions. The trailing end has an aperture 17 for a tool. (See, e.g., Figs 1 and 4; Abstract; col. 1, lines 5-11; col. 2, lines 11-31; and col. 4, lines 3-15.) Herbert does not disclose the through-holes. Kim discloses a bone compression and fixation device 10 comprising a first through-

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hole 20 and a second through-hole 24 (see Figs. 1-4). Through-hole 20 extends at an angle (not 90 degrees) to the body 14 of the device, along a straight axis between a first opening proximate a trailing end of the device and a second opening distal to the trailing end. The second through-hole 24 extends between a third and fourth opening proximate to the leading end of the device. Through-hole 24 is normal to a longitudinal axis of the body of the device. Through-hole 24 has a first dimension parallel to the longitudinal axis that is longer than a second dimension perpendicular thereto (i.e., it has a "slot" shape). Kim discloses that providing the device with the through-holes improves compression between the fractured bone components and provides more secure fixation and faster healing (see col. 2, lines 13-37; col. 3, lines 34-45; and col. 4, lines 55-59). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the bone compression and fixation device of Herbert with a through-hole extending at other than 90 degrees between an opening proximate to the trailing end and a second opening distal to the trailing end, and with a second through-hole extending perpendicularly to a longitudinal axis of the device proximate to the leading end of the device, the second through-hole having a first dimension parallel to the longitudinal axis of the device that is longer than a second dimension perpendicular thereto, in view of Kim, in order to improve compression between the fractured bone components and provide more secure fixation and faster healing. With regard to claims 2, 6 and 8, it would have been further obvious to have formed the through-holes with a size in a range capable of receiving a 4 mm locking screw, and the second through-hole with a longitudinal dimension of approximately one

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inch, since it has been held that where the general conditions of a claim are disclosed in the prior art, as here, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (4,175,555; cited by applicant) in view of Kim (5,658,288), as applied to claim 1 above, and further in view of Chapman et al. (5,201,735).

The device of the combination of Herbert and Kim discloses the claimed invention except for a sleeve portion aligned with a through-hole and extending away from the trailing end of the device. Chapman et al. disclose a bone fracture fixation device 10 comprising a sleeve portion 14 aligned with a through-hole 30 and extending away from a trailing end of the device, to allow the passage of a screw through the hole, without the need for another incision, to prevent backout of the device and reduce rotational stresses at a fracture site (see Fig. 1; col. 3, lines 30-35; and col. 5, lines 36-48). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the bone compression and fixation device of the combination of Herbert and Kim with a sleeve portion aligned with a through-hole and extending away from the trailing end of the device, in view of Chapman et al., in order to allow the passage of a screw through the hole, without the need for another incision, to prevent backout of the device and reduce rotational stresses at a fracture site.

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Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herbert (4,175,555; cited by applicant) in view of Kim (5,658,288), as applied to claim 9 above, and further in view of Bowman et al. (4,950,270).

The device of the combination of Herbert and Kim discloses the claimed invention except for the threaded portion in the tool aperture. Bowman et al. disclose a fracture fixation device 10 comprising a threaded portion (not shown) in the tool aperture 27, to permit an extraction tool (not shown) to engage the threads and permit easy extraction of the device (see Figs. 1 and 4 and col. 3, lines 26-39). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the bone compression and fixation device of the combination of Herbert and Kim with a threaded portion in the tool aperture, in view of Bowman et al., in order to permit an extraction tool to engage the threads and permit easy extraction of the device.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Comstock whose telephone number is (571) 272-4710. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. Comstock  
29 January 2006



EDUARDO C. ROBERT  
SUPERVISORY PATENT EXAMINER